The secretary, in the course of some remarks on the forms of vases, pointed out the following as ready and simple methods of describing the conic section of the parabola, hyperbola, and the ellipse, as applicable to designs for vases and pottery.

To describe the conic section of the parabola, he would first draw a circle of any given diameter, and under it a horizontal base line, from which a vertical line should be made to rise through the diameter of the circle. All that is then required to describe the parabola is, that a line equidistant in all its parts, between the circle and the horizontal base line on each side of the vertical base line should be described, when the parabola is obtained. For flat cups, such as the tazzas, he would describe the hyperbola which might be considered as bearing the relative proportions of two parts of a straight line to one of a circle, and is described in the following manner, viz:—by drawing a circle of the required diameter, and under it a base line; a vertical is then to be raised through the centre of the circle, after which, if a line be drawn at the distance of one-third from the base line, and two-thirds from the circle, the figure required is produced.

Elliptic figures are described in a similar manner, but bear a directly inverse ratio to the hyperbola. These simple methods of describing geometric figures, he considers must have been known to the ancients, as he has no doubt that the Greeks did apply the formation of the conic section to the structure of their pottery.

NOTES IN THE PROVINCES.

An obelisk, 64 feet high, has been erected as a monument to Newton by the Rev. Charles Turnor, in the parish of Stoke Rochford, Lincolnshire.——A new stained window for Ely Cathedral, the third donation of the Rev. E. B. Sparke, is about to be put in. It has been executed by a continental house.——A Corn Exchange, Post-office, Savings' Bank, and public Reading-room, in one design, are to be erected at Saffron Walden.——The works of the new steam basin at Portsmouth were lately in such imminent peril of destruction by an unusually high tide, that intimation was telegraphed to the Admiralty. The immense weight, however, was safely withstood.——A stained-glass window, by Messrs. Pemberton, of Newhall-hill, has been erected in the chapel of Queen's College, Birmingham. The design was provided by Mr. Brooke Smith, of the School of Design. The chapel is to be enlarged.——A writer in the *Liverpool Journal* reprehends the grotesque ornaments on Mr. Horsfall's new church in Great Homer-street as an imitation, in the Chinese tailor style, of what he calls the "patches of architecture" displayed in the "strange fancies of the artists of bygone ages." The builder, he remarks, "has been lavish in this kind of dubious sculpture."——The enlargement of Christ Church, Salford, is now completed, minus the painting. Mr. Shellard, the architect, has thus provided 430 additional sittings by the addition of a chancel 18 feet long and another pillar. Light has been introduced over the communion table entirely from the roof.——The Bradford workhouse is threatened to be remorselessly undermined by coal workings, unless 200*l.* be paid down directly to prevent the risk of its destruction; but the threat appears to have accidentally revealed the fact, that both the ground and the minerals beneath its surface belong to the workhouse itself! So that the biter is likely to be bit, if it be true that he has thus unwarily caught a tartar.

CAEN STONE.

Sir,—In your last report of the proceedings at the Royal Institute of Architects, you furnished a copy of a paper read "On Caen, its quarries and buildings."

Without offering any observations upon the material used in the buildings at Caen, though acquainted with the locality, we conclude that information respecting the properties and varieties of the Caen stone, which forms the basis of the paper referred to, will not be unacceptable.

The stone from the quarries at Ranville, which is first mentioned, has been used to a great extent in the public works at Honfleur, Havre, Fecamp, St. Valery, Dieppe, and Treport, also in the works at the mouth of the river at Caen. The hard, or dog bed, is considered very durable: about 70 tons of this stone, with a few blocks of the white bed (which is of softer quality), have lately been landed at Dover for the Government works under the direction of Messrs. Walker and Burgess, and a further quantity of about 1,000 tons is in course of delivery.

With reference to the quarries at Allemagne, it does not appear that they were worked to any extent until about the year 1808; the stone formerly sent to this country is known to have been much laminated, and of a harder texture. A stone called colombelle was formerly shipped in considerable quantities; it is considered very durable, and the blocks, on being sounded, ring like copper. We have directed the shipment of a cargo of this stone.

In the selection of Allemagne stone an experienced mason will decide, after a very short examination, though he may have no knowledge of the peculiar beds from which it is obtained, and the more free the stone is from the humidity of the quarry, the less difficulty will he feel in deciding upon the quality. If, however, an opinion should prevail that "the most experienced eye can hardly detect the quality of the stone in the block when once it has been removed from the quarry," it does not say much for practical experience, and some other method should be proposed to make the selection generally satisfactory.

We export considerable quantities every summer, and are, Sir, yours, &c.,

W. and J. Freeman.

Millbank-street.

SEWERAGE OF BRISTOL.

INSTITUTION OF CIVIL ENGINEERS.

At a meeting on February 8th, 1848, Mr. Joshua Field, president, in the chair, the paper read was "An Account of the recent Improvements in the Drainage and Sewerage of Bristol," by Mr. James Green. From this account it appeared that for many years past great reformation had been requisite in the sewerage of Bristol, and more especially in the localities adjacent to the course of the river Froome, whose channel had become a large cesspool, spreading miasma and disease all around. This river formerly emptied itself in the river Avon in the city, and then all that was brought down by the stream was carried away by the tide; but when to form the floating harbour the old course of the Avon was dammed across by lock-gates, and a new cut was made for carrying off the contents of the sewers emptying themselves into the Froome, a nuisance of the most serious character was created, and the bed of the river became permanently affected. Mr. Mylne some years since constructed a lateral culvert from the embrochure of the Froome debouching in the new cut—this did partial good; but still the general state of the river remained unimproved, and in deference to the universal demand for sanitary reform, the authorities of Bristol employed Mr. Green to devise and execute plans for the improvement of the sewerage of the part of the city most demanding it. He laid out comprehensive plans, but the estimate of their cost exceeded the funds at the disposal of the council, so he modified them, and the result, it was said, had proved successful.

The proceedings were to bring the channel of the river into a uniform width, by building side walls, with gutters in the upper slopes, conveying the sewage into the stream, obliterating the shoals and cleaning up the bed, thus bringing it to a uniform inclination, removing the obstructions caused by the pier of the Castle Millstreet bridge, lowering the height and extending the length of the weir at the castle moat, with new flood-gates, &c., deepening the bed of the upper part of the stream, and thus making convenient arrangements for regularly cleaning out and flushing the channel, and passing off the products through Mylne's culvert into the new cut, whence it was conveyed away by the tide. The expense was 4,537*l.*

At a meeting on the 15th a discussion of the paper was commenced, but no new matter was brought forward. Some strong remarks were made against statements put forth by the Sanitary Commission.

METROPOLITAN COMMISSION OF SEWERS.

A meeting of the Metropolitan Commissioners of sewers was held on Thursday, the 10th instant, Lord Morpeth, M.P., in the chair.

The clerk read a recommendation from the General Purposes Committee, to the effect that an inquiry and report be made out as to the alterations necessary in the mode of conducting labour in the sewers under their jurisdiction, so as to diminish its injurious tendency.—Mr. Chadwick, in moving that the recommendation of the committee be adopted, said it was the duty of that court to take all possible care against any injurious effects being experienced by the labourers engaged in cleansing their sewers. It had been said from time to time that the work done by them was not injurious to health, as its effects were not visible, but when they came to compare them with other persons of a similar class not engaged in such employment, the traces of its pernicious effects were soon observed. In fact, many of the men had relinquished the work from their inability longer to continue it. Caution had also been wanting, for lately four men had been severely injured by an explosion of foul air from a sewer,—two of them being conveyed to the hospital, where, he believed, at present one remained.

Dr. Southwood Smith concurred in the recommendation of the committee, and instanced the care at present taken of the men in the police, where, as a matter of economy merely, it was found to work remarkably well. Adopted.

A further resolution of the committee was then read, recommending that proper lamps should be furnished to the men, and that their use should be enforced.—Mr. Leslie said the new lamps in use could not be opened. He regretted to see by that day's papers an account of the explosion of a mine near Birmingham, with all its dreadful consequences of loss of life. They ought by all means to prohibit the use of candles, and, by a stringent rule, discharge any men if the proper lamps were not used.

In reference to the subject of compelling persons to drain their houses into the public sewers, it was recommended by the committee, and agreed, "That no person be charged more than 10*s.* per foot frontage on laying a drain into any sewer built by a private person, except in squares or other open spaces."

Mr. Chadwick mentioned to the court that the reports of Mr. Austin and Mr. Phillips, as to relieving certain districts, by pumping out the sewage and otherwise, had been received, and he considered the details were highly satisfactory. He wished, however, that they should be printed and submitted for the consideration of each commissioner; and that a special sub-committee, consisting of Sir H. de la Beche, the Dean of Westminster, Mr. Chadwick, and Mr. R. L. Jones should be appointed to examine the plans in detail, and report on the views of amendment set forth therein. The motion was agreed to.

The Hon. F. Byng brought under the notice of the court the horrible state of Lascelles-court, near St. Giles's workhouse, which, he said, for the extent of filth, was really a curiosity in its way, but such a one, he hoped, as would not be allowed long to exist. There was but one cesspool for the use of the whole of the inhabitants, but so offensive was it, that several of them were compelled to decline its use altogether.

A long discussion ensued on this subject, and it was finally resolved that a plan be made of Lascelles-court, with the estimated cost of a water-tank, or of draining the same place to the nearest sewer.

The Dean of Westminster said some facts pertinent to this subject had come to his knowledge. In the precincts of the Dean and Chapter of Westminster, seventeen cesspools had been relieved, and the operation had been performed under the direction of Mr. Glass, the chemist, whose report he now handed in. The deodorising fluid had answered extremely well for the purpose intended, but yet there were several yards of solid residuum that could not be pumped out, consisting of rags, bricks, &c.; and he looked upon the filling in the cesspools altogether as the only real remedy for the evil.—Mr. Leslie said that eleven cesspools were attached to houses belonging to him in Conduit-street; but by filling them in, and laying down a small drain, every purpose was answered, for there was now no complaint whatever.—Dr. Southwood Smith was of opinion that they could not abolish cesspools unless they had an abundant supply of water.—Mr. R. L. Jones said every court and alley in the city of London was supplied with water to a large amount daily; and if a representation was to be made from this court to the Water Companies, insisting upon a good supply of water every day, he had no doubt whatever that it would be attended to.

Lord Morpeth inquired of Mr. Roe, the surveyor, whether there would be any difficulty in making a preparation of quick lime for disinfecting purposes?—Mr. Roe replied that there would not be the slightest difficulty in its use.—Mr. Leslie objected to the use of lime, as it produced sulphuretted hydrogen, and might be attended with the worst

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